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## An Investigation of the Effects of Open Leadership to Organizational Innovativeness and Corporate Entrepreneurship

Tuna Uslu<sup>a</sup>, Idil Ayça Bülbül<sup>b,\*</sup>, Duygu Çubuk<sup>ab</sup><sup>a</sup>*Gedik University, Gedik Vocational School, Occupational Health And Safety Program, Istanbul, 34876, Turkey*<sup>b</sup>*Gediz University, Faculty of Arts and Sciences, Psychology Department, Izmir, 35230, Turkey*<sup>ab</sup>*Beykent University, Printing and Broadcasting Technologies Program, Istanbul, 34396, Turkey*

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### Abstract

Studies on different leadership styles have a long history in the field of industrial psychology and organizational research. Being one of the determinants of how things work in the organization, different leadership styles such as transactional, transformational, authentic or paternalistic leadership have different effects on organizational outcomes. Specifically, in small enterprises, the leadership style of company owner has a direct effect on employee attitudes. On the other hand, with the widespread increase in the use of different communication channels and in the ease of access to information, the information age has brought its own leadership requirements. The present study is designed to assess the effects of leadership on organizational performance through the mediation of knowledge management by comparing open leadership with other approaches to leadership. Adopting a survey methodology, data from a total of 422 participants were gathered through convenience sampling. It is apparent that open leadership is an approach that supports entrepreneurship and innovativeness, yet not so frequently observed in Turkey, compared to other leadership styles. The results are elaborated in the discussion section and several propositions are put forward in order to support open leadership with the aim of disseminating a culture of entrepreneurship in organizations.

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**Keywords:** Leadership Styles, Open Leadership, Knowledge Management, Organizational Innovativeness, Corporate Entrepreneurship

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\* Corresponding author. Tel.: +90-232-355-0000; fax: +90-232-355-0018.

E-mail address: [ayca.bulbul@gediz.edu.tr](mailto:ayca.bulbul@gediz.edu.tr)

## 1. Introduction

The literature on different leadership styles have a long history in the field of organizational research. Being one of the determinants of how things work in the organization, different leadership styles such as transactional or transformational, task oriented or relationship oriented have different effects on organizational outcomes. Specifically, in small enterprises, the leadership style of company owner has a direct effect on employee attitudes and organizational outcomes. At the other end of the continuum, in large companies, leadership styles and organizational culture are constantly co-creating each other and thereby affecting employee attitudes and related organizational outcomes.

The current approaches to leadership adopt an inclusive, democratic and transformational view of management and the employees are expected to exert control and initiative over the work they do, get notified of potential problems in their line of work, and encouraged to come up with proposals, use their own skills and abilities and to develop alternative ways of performing. Through this inclusive, cooperative and transformational approach to management, employees can create alternative and innovative ways to solve problems on their own. They are provided with information about the specifics of a given situation and encouraged to put forward and discuss their insights and suggestions (Newstorm and Davis, 1993). With a democratic management, the inclusion of group members to the decision making process leads way to more effective and realistic decisions, despite the possible time loss which may be caused by a longer decision making process. Also, by appreciating what each group member has to offer, an increase in job satisfaction can be observed, as well as a more efficient and productive work group. Transactional leaders adopt an impartial and systematic reward and punishment approach in resolving conflicts whereas transformational leaders work to provide more space to the employees for freedom and action (Bass and Steidlmeier, 1999). In this way, transformational leaders support the empowerment and commitment of the employees.

The recently articulated concept of open leadership (Li, 2010) on the other hand, focuses on the change in leadership characteristics as a function of the developments in technology and the use of multimedia communication tools. According to this approach, open leaders demonstrate several fundamental behaviors such as “hiring, training, and promoting the right people, creating a culture that supports being open, removing barriers to being open, and encouraging risk taking and speed recovery from failure” (Li, 2010, p. 230).

In recent decades, with the widespread increase in the use of different communication channels and in the ease of access to information, the information age has brought its own leadership requirements (Tiwana, 1999). Knowledge management refers to the processes related to the acquisition, storage and effective use of organizational knowledge to meet organizational objectives. As the definition implies, it requires both a top-down approach in organizing the available information as well as a bottom-up cooperation in order to access to the most useful information.

At the bottom line, two variables are at the focus in the present study. One is organizational innovativeness and the other is corporate entrepreneurship. Although they refer to different processes, they also share some common aspects in terms of employee attitudes and organizational outcomes. They both require employees to behave proactively and they both lead to organizational development when managed properly.

## 2. Literature Review and Hypotheses

Several approaches to leadership are tested and modeled in order to investigate their effects on organizational innovativeness and corporate entrepreneurship as well as knowledge management. Below, the three critical approaches for the purpose of the present study are briefly reviewed in terms of their relationship with organizational innovativeness, corporate entrepreneurship and knowledge management.

### *2.1. Transactional Leadership*

Transactional leadership is the leadership style that focuses on the role of supervision. It is about keeping things as they are and as predicted. Therefore, the orientation in transactional leadership is a static one compared to other types of leadership which are focused on development and change. The three components of transactional leadership are contingent reward, active management by exception, and passive management by exception (Bass, 1985). Taken together, these three factors emphasize the supervisory power of the leader.

### *2.2. Transformational Leadership*

Transformational leadership is characterized by the leader's ability to identify the need for change within the organization, creating the conditions needed for that change to occur and executing the change process by enabling the employees to contribute.

According to Bass (1985) transformational leadership is defined by four components which are idealized influence, intellectual stimulation, inspirational motivation, and individualized consideration. Taken together, these four components of transformational leadership defines a leadership style which position leaders as role models, a source of motivation, a catalyst for creative problem solving and a mentor for the employees.

Nonetheless, a leader can show aspects of both transactional and transformational leadership behaviors in response to the demands of the situation (Howell and Avolio, 1993).

Taken together, research on both types of leadership point to inconclusive findings in terms of their effects on organization focused idea generation and creative behaviors (Deichmann and Stam, 2015). This observation, combined with the distinct aspect of open leadership (Li, 2010) which focuses on information sharing and decision making processes within the organization, led the way for the main questions of the present research. Can open leadership explain differences in organizational innovativeness and corporate entrepreneurship better than transactional and transformational leadership? Is this relationship a direct one or mediated by another, more immediate factor, namely, knowledge management?

### *2.3. Open Leadership*

Open leadership, proposed by Li (2010), offers a new approach to leadership by focusing on the shared aspects of leadership roles. Li (2010) defines open leadership as “having the confidence and humility to give up the need to be in control while inspiring commitment from people to accomplish goals”. As the definition implies, open leadership requires employees to share leadership roles with the leader. In this respect, we can expect to see empowered employees where this leadership approach is adopted by the management.

Open leadership is actually composed of ten attitudinal and behavioral elements that Li (2001) identifies as falling into two general categories; information sharing and decision making. With an open leadership approach, information sharing is supposed to be explaining, updating, conversing, open mic, crowdsourcing and involving platforms. In terms of decision making, open leadership suggests that it should be centralized, democratic, self-managing and distributed.

Compared to the two other leadership styles previously discussed, open leadership is suggestive of stronger links with organizational outcomes such as organizational innovativeness and corporate entrepreneurship, which are briefly reviewed in the following sections.

## 2.4. Organizational Innovativeness

Organizational innovativeness is defined as “an organisation’s overall innovative capability of introducing new products to the market, or opening up new markets, through combining strategic orientation with innovative behaviour and process” (Wang & Ahmed, 2004). As implied by this definition, organizational innovativeness is a multidimensional construct (Salavou, 2004). Although the components mentioned above might remind us the end-product which is the innovation itself, organizational innovativeness reflects an approach rather than an outcome.

One of the early definition of innovativeness involved “willingness to change” (Hurt et al., 1977). Goldsmith and Hofacker (1991) defined innovativeness as an attitude as well as a behavior. The conceptualization proposed by Berthon et al. (1999) has several components such as open-mindedness, willingness to change and ability to innovate. Therefore, as an organizational “attitude” directly related to dealing with and making use of available information with an open-minded approach, organizational innovativeness can be conceptualized as a specific organizational approach to information processing. In this respect, knowledge management practices in the organization constitute one of the likely antecedents of organizational innovativeness. Intrapreneurship can be described as the involvement of the employees in the innovation activities of the firms mentally. In the recent studies, private sector practices and perception of private sector employees about knowledge management and intrapreneurship are higher than public sector employees’ in Turkey (Uslu et al., 2014). Knowledge management is also effective on intrapreneurship.

## 2.5. Corporate Entrepreneurship

Corporate entrepreneurship is the process through which an organization explores new knowledge and makes use of existing knowledge in order to pursue new business opportunities (Hayton, 2005).

Since corporate entrepreneurship is a strategic orientation (Covin & Miles, 1999) which involves a continuous reevaluation of the products, processes, services, and strategies of the organization, it is affected both by management practices such as leadership styles as well as the employee attitudes. In fact, Hayton (2005) emphasizes the role of information processing and knowledge management in corporate entrepreneurship by positioning it as being “dependent upon a firm’s ability to continuously learn and unlearn, by creating and exploiting new combinations of knowledge”.

Therefore, as it is the case for organizational innovativeness, knowledge management seems to be a likely mediator in the relationship between leadership styles and corporate entrepreneurship.

## 2.6. Knowledge Management

The rapid development of information and communication technologies have been changing the organizational structure, business and work methods, manager and employee profile, and in general work life, and have been bringing out new models particularly in communication in inside and outside the organization. Knowledge management is defined as “the management function responsible for regular selection, implementation and evaluation of knowledge strategies that aim at creating an environment to support work with knowledge internal and external to the organization in order to improve organizational performance” (Maier, 2005).

As can be seen, interaction that forms as a result of sharing every single type of information, expectation, emotion and thought has both social and organizational functions. These functions can be classified as education and development, unified, innovation, persuasion, guidance, communication, coordination and conflict management (Saal & Knight, 1988). In the knowledge management activities, communication methods, techniques, and channels are heavily utilized, and because of this reason, it is emphasized that the communication aspect has a stronger influence than the management aspect of knowledge management, meaning that knowledge management applications especially through communication influences outcomes. As a result of this, in order for the information

to be shared in the institutions, managers who understand the importance of social interactions and communication with the employees and an institutional management are needed, because socialization of the individuals in the business is one of the dynamics of the knowledge management (Nonaka & Takeuchi, 1995).

Knowledge utilization can't be disregarded as an important factor in knowledge based economy (Soleimani et al., 2013). Two kinds of knowledge management process can be differentiated, tactical and strategic (Filius, De Jong & Roelofs, 2000). Tactical knowledge management is a process of collecting and using information to solve problems and deriving value from the information. On the other hand, strategic knowledge management refers to the process of assessing, creating and sustaining intangible assets through the use of information and in line with business strategy.

In the study for analyzing the influence of knowledge management on organizational entrepreneurship a significant relationship is found. Except knowledge applications; knowledge acquisition, knowledge conversion, knowledge protection, culture, structure and technology has highly significant relationship with organizational entrepreneurship (AbdeAli & Moslemi, 2013). Knowledge management is a mean to encourage corporate entrepreneurship in the companies. Knowledge creation is the most determinant part of this process.

As with any other organizational outcome, organizational innovativeness and corporate entrepreneurship can either be seen as a direct product of leadership styles or an immediate outcome of employee behaviors, knowledge management in this case, which are shaped by leadership styles.

Although the effects of leadership styles on organizational outcomes such as organizational innovativeness and corporate entrepreneurship are well documented, knowledge management seems to be a more immediate antecedent which, in turn, likely to be affected by leadership styles. Therefore, in the present study we tested the mediation effect of knowledge management in the relationship between leadership styles and organizational innovativeness and corporate entrepreneurship.



Fig. 1. Model of the research.

More specifically, the present study is designed to assess the effects of different leadership styles on organizational innovativeness and corporate entrepreneurship through the mediation of knowledge management by comparing open leadership with other approaches to leadership such as transactional and transformational leadership (Fig. 1). The following hypotheses are given to test the research model.

*H1.* Knowledge management will function as mediating variables between transactional leadership and corporate entrepreneurship.

*H2.* Knowledge management will function as mediating variables between transactional leadership and organizational innovativeness.

*H3.* Knowledge management will function as mediating variables between transformational leadership and corporate entrepreneurship.

*H4.* Knowledge management will function as mediating variables between transformational leadership and organizational innovativeness.

H5. Knowledge management will function as mediating variables between open leadership and corporate entrepreneurship.

H6. Knowledge management will function as mediating variables between open leadership and organizational innovativeness.

### 3. Methodology

#### 3.1. Research Goal

In this survey we aim to identify the mediating effect of knowledge management on the relationship between leadership styles with organizational innovativeness and corporate entrepreneurship. To test the propositions, a field survey using questionnaires was conducted. The questionnaire is administered to participants who were currently employed.

#### 3.2. Sample and Data Collection

Adopting a survey methodology, data from a total of 422 participants were gathered through convenience sampling. A Likert type scale was presented to the respondents that would allow them to conduct evaluations regarding each entry. (1 = totally disagree, 5 = totally agree). “Open Leadership” is assessed with reference to the dimensions of the approach put forward by Li (2010). Li (2001) identifies two general dimensions; information sharing and decision making. Other leadership styles included in the models are as follows: “Transactional Leadership” is assessed with the scale used by Bass and Avolio (1995), and “Transformational Leadership” by Peng-Cheng et al. (2008). The assessment items for “Knowledge Management” were compiled from the relevant literature (Tiwana, 1999; Uslu et al., 2010). The scale used to assess “Innovativeness” was designed by Hurt et al. (1977) to measure the level of organizational innovativeness, and the scale used to assess “Corporate Entrepreneurship” was designed by Zahra (1991) to evaluate the organization’s interest in new ventures, innovation and organizational renewal. The Cronbach’s Alpha values for each factors exceeds 0.70, which indicates the reliability of scales used in that survey. Data obtained from 422 participants were analyzed through the SPSS statistical packet program and proposed relations were tested through regression analyses. Mediation models were tested using the methodology proposed by Baron and Kenny (1986).

#### 3.3. Analyses and Results

Factor structure of the scales and reliabilities were assessed, demographic analyses, difference tests, linear and hierarchical regression analyses were carried out using SPSS 18. For the purpose of determining the intermediation roles of the intermediary variables, three-step method proposed by Baron and Kenny (1986) was adapted to our research. The models were compared by conducting a separate hierarchical regression analysis for each model.

Demographic characteristics of the sample used in this study are as follows: 43% of female respondents and 57% of males and the mean age was 38. Of 83% bachelor's degree and the remaining 17% portion of the participants were the elementary, middle school and high school graduates. The average working time among the participants was approximately 10 years in this business, and they have been in working life for an average of 17 years.

With varimax torsion in SPSS, exploratory (descriptive) factor and internal consistency analyses were performed. Each scale was run through the factor analysis separately, and their reliability was tested with Cronbach's alpha values, and the scales were translated in the following tables. Cronbach's alpha reliability coefficients of the scales were 0.80 and higher, therefore the scales were found to be reliable. Open leadership is assessed with reference to the dimensions of the approach put forward by Li (2001). Relationship orientation dimension of the leader is adopted from Brown et al. (2002). Those items with weights can be seen on the Table 1.

Table 1. Reliability Analysis of the Open Leadership Scale.

Open Leadership	Item Weight
My superior creates a transparent, open and clear business environment.	,922
My superior is close and acts humble against anyone.	,909
The employees are proud to work with my supervisor.	,909
My superior uses new approaches to manage human resources.	,908
My superior faces the facts.	,897
My superior supports me when I was in a nuisance.	,896
My superior cares about my feelings.	,895
My superior is open to criticism and evaluates the opposing ideas.	,894
My superior indicates his views and listens to different opinions.	,877
My superior tries to understand the opposite, then tries to express himself.	,869
My superior takes responsibility in the decisions, is ready to give an account.	,850
My superior takes into consideration the moral and ethical implications of the decisions.	,833
N	417
% of Variance Explained:	82,253
Cronbach's Alpha	,980
KMO Value:	,966
Bartlett's Test:	,000
Approx. Chi-Square:	1748,949

For the participants, the effective use of open and transformational leadership level in Turkey is below transactional leadership (Fig. 2). According to Pearson's correlation coefficients, high positive correlations was found between knowledge management, organizational innovativeness, corporate entrepreneurship and leadership styles. Progressive intermediary variable tests towards the organizational innovativeness and corporate entrepreneurship are performed with the verification of different models with SPSS (Table 2, 3 and 4).

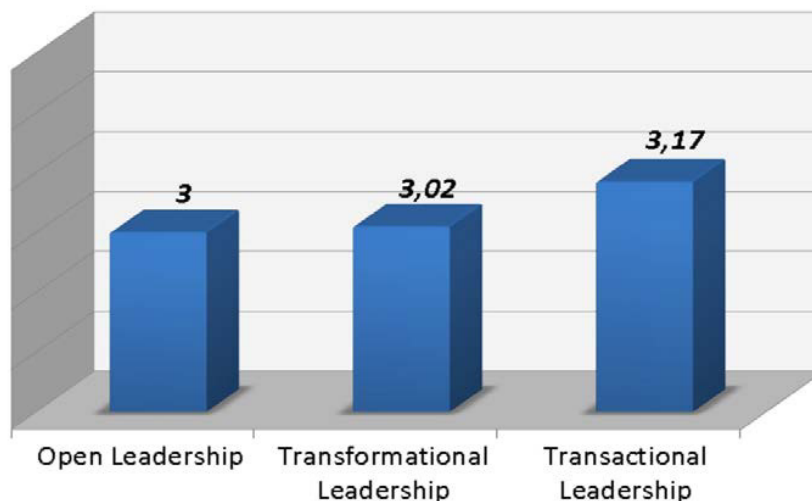


Fig. 2. Perception level of different leadership styles.

For the participants, the effective use of open and transformational leadership level in Turkey is below transactional leadership (Fig. 2). Transactional leadership increase the effectiveness of knowledge management (Model 1), corporate entrepreneurship (Model 2) and organizational innovativeness (Model 4). Knowledge management is also effective on corporate entrepreneurship (Model 3) and organizational innovativeness (Model 5). Transactional leadership isn't directly effective on corporate entrepreneurship by knowledge management (model 3), so knowledge management is a mediator between transactional leadership and corporate entrepreneurship (Table 2). First hypothesis was fully supported. Transactional leadership has still direct positive effect on organizational innovativeness by knowledge management (model 5), so knowledge management is partially mediating between



transactional leadership and organizational innovativeness (Table 2). Second hypothesis was partially supported.

Table 2. Multiple Regression Models for the Impact of Transactional Leadership on Corporate Entrepreneurship and Corporate Entrepreneurship.

	Dependent Variables				
	Knowledge Management	Corporate Entrepreneurship		Organizational Innovativeness	
	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>
Transactional Leadership	.645*** (.052)	.574*** (.049)	.094 (.049)	.684*** (.055)	.147** (.057)
Knowledge Management			.739*** (.059)		.813*** (.065)
<i>Adjusted R<sup>2</sup></i>	.599	.576	.835	.629	.863
<i>F</i>	156,494***	138,202***	257,464***	156,750***	290,352***

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$  significant value, standard errors in parentheses

Transformational leadership increase the effectiveness of knowledge management (Model 6), corporate entrepreneurship (Model 7) and organizational innovativeness (Model 9). Transformational leadership has still direct positive effect on corporate entrepreneurship by knowledge management (model 8), so knowledge management is partially mediating between transformational leadership and corporate entrepreneurship (Table 3). Third hypothesis was partially supported. Transformational leadership isn't directly effective on organizational innovativeness by knowledge management (model 10), so knowledge management is a mediator between transformational leadership and organizational innovativeness (Table 3). Fourth hypothesis was fully supported.

Table 3. Multiple Regression Models for the Impact of Transformational Leadership on Corporate Entrepreneurship and Corporate Entrepreneurship.

	Dependent Variables				
	Knowledge Management	Corporate Entrepreneurship		Corporate Entrepreneurship	
	<b>Model 6</b>	<b>Model 7</b>	<b>Model 8</b>	<b>Model 9</b>	<b>Model 10</b>
Transformational Leadership	.622*** (.050)	.566*** (.047)	.111* (.047)	.676*** (.055)	.105 (.057)
Knowledge Management			.720*** (.058)		.850*** (.069)
<i>Adjusted R<sup>2</sup></i>	.595	.593	.838	.619	.857
<i>F</i>	153,717***	148,027***	263,044***	150,288***	276,825***

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$  significant value, standard errors in parentheses

Open leadership also increase the effectiveness of knowledge management (Model 11), corporate entrepreneurship (Model 12) and organizational innovativeness (Model 14). But open leadership has still direct positive effect on corporate entrepreneurship by knowledge management (model 13), so knowledge management is just partially mediating between open leadership and corporate entrepreneurship (Table 4). Fifth hypothesis was partially supported. Open leadership has still direct positive effect on organizational innovativeness by knowledge management (model 13), so knowledge management is just partially mediating between open leadership and organizational innovativeness (Table 4). Sixth hypothesis was partially supported.



Table 4. Multiple Regression Models for the Impact of Open Leadership on Corporate Entrepreneurship and Corporate Entrepreneurship.

	Dependent Variables				
	Knowledge Management	Corporate Entrepreneurship		Organizational Innovativeness	
	Model 11	Model 12	Model 13	Model 14	Model 15
Open Leadership	.549*** (.051)	.504*** (.047)	.093* (.041)	.615*** (.053)	.148** (.046)
Knowledge Management			.737*** (.054)		.808*** (.059)
Adjusted R <sup>2</sup>	.524	.533	.838	.596	.867
F	115,532***	116,260***	262,020***	136,826***	301,195***

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$  significant value, standard errors in parentheses

#### 4. Conclusion

The results indicated that employees in Turkey are in direct communication with their immediate supervisors and they evaluate them as transactional, while they rated them being less transformational and open. But the recently articulated concept of open and relation oriented leadership on the other hand, focuses on the change in leadership characteristics as a function of the developments in information technology and the use of multimedia communication tools.

Although these contemporary findings may seem contradictory at first, the relationships become clearer when the leadership styles, traditionality and cultural environment in Turkey are taken into account. The findings also present an insight on situational leadership styles in the sense that whether a given leadership style would be more effective in a given organization depending on the specific circumstances or the size of the company.

It is apparent that open leadership is an approach that directly supports entrepreneurship and innovativeness, yet not so frequently observed in Turkey, compared to other leadership styles. Compared to the transactional and transformational leadership styles previously discussed, open leadership is suggestive of stronger links with organizational outcomes such as organizational innovativeness and corporate entrepreneurship.

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